

IN THE CLAIMS

1-9. (canceled)

10. (currently amended) A drug composition for ~~continuous or progressive or continuous and progressive~~ administration to a subject orally, subcutaneously, transdermally or any combination thereof, comprising as a first component, nicotine or a nicotine derivative, wherein said nicotine or nicotine derivative is present in an amount sufficient to be administered to said subject at a gradually increasing rate of from 0.2 mg to 5 mg per day per kilogram of body weight of said subject and a second component comprising L-DOPA in a dose at least 30% lower than the effective dose when L-DOPA is administered in the absence of said first component.

11. (canceled)

12. (previously presented) The drug composition of claim 10 wherein said second component further comprises a dopaminergic agonist.

13. (previously presented) The drug composition of claim 12 wherein said dopaminergic agonist is selected from the group consisting of bromocriptine and piribedil.

14. (previously presented) The drug composition of claim 10 wherein at least one of said components is in galenical form.

15. (currently amended) A method for improving the functionality of D1 and D2 dopaminergic receptors associated with neurodegenerative diseases, multi-systemic atrophies or both, comprising administering to a human mammal over a long term period an effective dose of at least two drug components, comprising a first component nicotine or a nicotine derivative in an amount sufficient to be administered to said human mammal at a rate from 0.2 mg to 5 mg per day per kilogram of body weight, and a second component comprising L-DOPA in a dose at least 30% lower than the effective dose when L-DOPA is

administered in the absence of said first component and a dopaminergic agonist.

16-17. (canceled)

18. (previously presented) The method of claim 15, wherein said D1 and D2 dopaminergic receptors are associated with neurodegenerative diseases.

19. (previously presented) The method of claim 18 wherein said neurodegenerative diseases are selected from the group consisting of Parkinson's disease and Tourette's syndrome.

20. (canceled)

21. (previously presented) The method of claim 15, wherein said dopaminergic agonist is bromocriptine or piribedil.

22. (currently amended) The method of claim 15, wherein said two drug composition is components are administered transdermally, subcutaneously, by using an extracorporeal pump, or orally.

23. (previously presented) The method of claim 22 wherein at least one of said components is in galenical form.

24. (previously presented) The method of claim 15, wherein said first component is administered at a gradually increasing rate.

25-26. (canceled)

27. (previously presented) The method of claim 15 wherein the term of said long period is at least about four months.

28. (currently amended) A method for treating a neurodegenerative disease, a multi-systemic atrophy, or both, in a human mammal comprising administering to said human mammal over a long term period an effective dose of at least two drug components comprising as a first component, nicotine or a nicotine derivative, wherein said nicotine or nicotine derivative is present in an amount sufficient to be administered to said human mammal at a gradually increasing rate of from

0.2 mg to 5 mg per day per kilogram of body weight of said human mammal and a second component comprising L-DOPA in a dose at least 30% lower than the effective dose when L-DOPA is administered in the absence of said first component and a dopaminergic agonist.

29-30. (canceled)

31. (previously presented) The method of claim 28 wherein said dopaminergic agonist is bromocriptine or piribedil.

32. (previously presented) The method of claim 31 wherein said treatment enables multiplication, stimulation and increase of nicotinergic receptors and pre-synaptic and post-synaptic D1 and D2 receptors in the nigrostriatum zone.

33. (currently amended) The method of claim 28 wherein said two drug composition is components are administered transdermally, subcutaneously, by using an extracorporeal pump or orally.

34. (previously presented) The method of claim 28 wherein at least one of said drug components is in galenical form.

35-37. (canceled)

38. (previously presented) The method of claim 28 wherein the term of said long period is at least about four months.

39. (previously presented) The drug composition of claim 10 or claim 53 wherein said nicotine or said nicotine derivative is present in an amount sufficient to be administered to said subject at a rate of from 93 mg to 160 mg per day.

40. (canceled)

41. (previously presented) The drug composition of claim 10 or claim 53 wherein said L-DOPA is present in an amount sufficient to be administered to a subject at a rate of 0.2 mg to 3 mg per day per kilogram of body weight of said subject.

42-43. (canceled)

44. (previously presented) The method of claim 15 wherein said administering is continuous or in doses which increase over three consecutive months followed by stabilized doses after three months.

45. (previously presented) The method of claim 44 wherein said nicotine or nicotine derivative is administered at a rate of from 93 mg to 160 mg per day.

46. (currently amended) The method of claim 44 wherein said nicotine or nicotine derivative is administered at a rate of 0.2 mg to 5 mg per day per kg of body weight of said subjecthuman mammal, and wherein said L-DOPA is administered at a rate of 0.2 mg to 3 mg per day per kg of body weight of said subjecthuman mammal.

47-48. (canceled)

49. (currently amended) The method of claim 35-15 or claim 28 wherein said administration of said first component at a gradually increasing rate is accompanied by a concomitant reduction in the L-DOPA dose.

50. (previously presented) The method of claim 28, wherein said administering is continuous or in doses which increase over three consecutive months followed by stabilized doses after three months.

51. (previously presented) The method of claim 50, wherein said nicotine or nicotine derivative is administered at a rate of from 93 mg to 160 mg per day.

52. (currently amended) The method of claim 50, wherein said nicotine or nicotine derivative is administered at a rate of 0.2mg to 5mg per day per kg of body weight of said subjecthuman mammal, and wherein said L-DOPA is administered at a rate of 0.2 mg to 3 mg per day per kg of body weight of said subjecthuman mammal.

53. (currently amended) A drug composition for continuous—or—progressive—or—continuous—and—progressive

administration and/or administration in doses which increase over three consecutive months followed by stabilized doses after three months to a subject orally, subcutaneously, transdermally or any combination thereof comprising as a first component, nicotine or a nicotine derivative, wherein said nicotine or nicotine derivative is present in an amount sufficient to be administered to said human mammal at a rate of from 0.2 mg to 5 mg per day per kilogram of body weight of said subject and a second component comprising L-DOPA in a dose of 0.2 mg to 3 mg per day per kilogram weight of said subject and a dopaminergic agonist.

54. (previously presented) The drug composition of claim 53, wherein said dopaminergic agonist is selected from the group consisting of bromocriptine and piribedil.

55-57. (canceled)